PATENT USSN: 10/563,209 Atty Dkt: 033082 M 297

AMENDMENT

IN THE SPECIFICATION:

Please amend paragraphs 0023 and 0035 of the specification, as filed, as follows: --[0023] Figures 2 and 3 are partial cross-sectional views of the gate valve 4 in the first embodiment. A valve seat 41 seat 42 having an annular surface 42a is formed in the main body 40. A lower annular surface 41a of a peripheral portion of the valving element 41 comes into contact with the valve seat 41 seat 42. The main body 40 is provided with a gas supply passage 43a to supply a purge gas such as nitrogen gas. A ring-shaped member, which has a vertical wall 44 extending upward from a peripheral portion of the valve seat 42, is arranged to surround the valving element 41. The ring-shaped member is internally provided with a gas communication chamber 45 having a ring shape. The gas supply passage 43c is connected to the gas communication chamber 45. Plural jetting ports 46, i.e., first purge gas supply ports, are formed in the vertical wall 44, and are arranged along the whole circumference of the vertical wall 44 at angular intervals, to jet a purge gas radially inwardly from the gas communication chamber 45. That is, the plural jetting ports 46 open towards a gap between the valve seat 42 and the valving element 41, and thus the purge gas always covers the surface of the valve seat 42 when the purge gas is jetted. An inflow-side exhaust passage 47, into which an exhaust gas discharged from the reaction vessel flows, is formed in a bottom portion of the main body 40. --

-- [0035] The valve 60 is opened to jet a purge gas from the jetting ports (first gas supply ports) 46 along the surface 42a of the valve seat 42 (the surface an annular surface to be in contact with the valving element 41), and to jet a purge gas from the jetting ports (second gas supply ports) 56 along the surface an annular surface 41a of the valving element 41 to be in contact with the valve seat 42. As the exhaust port 48 is sucked by the vacuum pump 31, the purge gas is jetted toward the gap between the valve cap 51 of the valving element 41 and the valve seat 42 at a high speed close to the sound speed. As a result, deposition of reaction by-products or the like on portions, near the O-ring 53 on the valve seat 42, of the main body 40, and portions near the valving element 41 can be prevented. Thus, close contact between the valve seat 42 and the valve cap 51 of the gate valve 4 via the O-ring 53 is assured. --